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PRESS RELEASE

The WITTMANN Group at the Swiss Plastics Expo in Lucerne

WITTMANN with high-tech injection molding technology and ultra-modern auxiliaries at the Swiss Plastics Expo

At the Swiss Plastics Expo held from 17 to 19 January, the WITTMANN Group, represented by BATTENFELD (Schweiz) AG and WITTMANN Kunststofftechnik AG, will present to trade visitors in hall 2, booth No. A 2000, a fully integrated injection molding cell producing bio building blocks, as well as its latest developments in the areas of robots and auxiliary equipment.

On an EcoPower 110/350 with the new B8X control system, laid out as an Insider cell, a bio building block will be manufactured from Fasal using an 8-cavity mold supplied by Bioblo, Austria. Fasal is a compound made by Fasal Wood GmbH, Austria, from wood flour and post-industrial polypropylene supplied by Borealis, Austria. The equipment is designed as an Insider cell, which includes a W918 robot and an S-Max 3 screenless granulator from WITTMANN, a conveyor belt and also the protective housing all integrated in the production system.
The system is completed by a Gravimax G14 blender and an Aton plus 120 desiccant wheel dryer. The robot and all WITTMANN auxiliary appliances can be programmed and operated via the machine's B8X control system. This offers a number of advantages, such as the options of simplified machine start-up, simplified data management (with joint backup of the mold data, appliance settings and robot program) and synchronization of movements for cycle optimization.

The molded parts and the sprue are removed by the W918 robot, and the sprue is passed on directly to the granulator, where it is ground and then returned to the process without being dried again. The finished parts are deposited on the integrated conveyor belt and can be taken home by trade fair visitors. To ensure top quality for the parts, the software packages HiQ Metering for active closing of the check valve and HiQ Melt for measuring the MFI are used in addition to HiQ Flow. The resulting MFR (melt flow rate) is an indicator of the material's flow attributes.

Robots and auxiliaries

In addition to the robot integrated in the injection molding cell and the auxiliaries connected to it, WITTMANN will also showcase a robot and several more auxiliary appliances as stand-alone solutions.

The robot is the latest model of the successful WX robot series, a WX128. A specially interesting feature of this robot is the newly developed compact control cabinet on its horizontal Z axis. To create this part, the rear structure has been shortened by 30%. Especially for small injection molding machines, it has now become possible to design an extremely compact protective housing, largely by way of positioning the drive unit and connection cables on the inside. The WITTMANN WX128 relies on a proven belt drive concept on all linear main axes. The decisive advantages of this concept were high dynamism, minimal sound emissions and easy maintenance.

Moreover, a selection of WITTMANN auxiliary appliances will be presented to visitors, including a Tempro plus D 160 single-circuit temperature controller with SpeedDrive. This is a speed-controlled pump offering users several additional options to make the injection molding process even more efficient. Via SpeedDrive, the pump speed, pump pressure and differential temperature can be set as parameters without having to purchase further optional equipment for the temperature controller. Each of these parameters to be set via SpeedDrive increases process reliability and, depending on the application, may also save energy and consequently costs.

Another exhibit will be a Card 20S compressed air dryer with a Vacujet material loader fitted with a filter dusting device. The CARD S comes with the FIT control system including a touch screen operating panel for precise temperature setting and various interface options, and the entire CARD S series is also equipped with a temperature-controlled, digital air flow regulation system.

Finally, WITTMANN will also present to Swiss Plastics Expo visitors its M8 network control for central material conveyor systems and its wide range of flow controllers. Worth special notice here is the WFC 120, a cost-optimized digital flow controller able to monitor the flow rates and mold return temperatures separately for each individual circuit. The flow rates in the individual circuits can be re-adjusted by means of manual control valves. The WFC 120 offers a choice of appliances ranging from 4 to 12 circuits (in steps of two). It comes with a 3.5” touch display via which the circuits are operated. On this display, the values of flow rates or temperatures are shown and monitored according to the tolerance margin entered. The parallel positioning close to the mold of the tempering ducts made possible by the WFC120 ensures higher flow rates with reduced pump wear as well as increasing energy savings and reducing maintenance expenses.

Fig. 1: EcoPower 110/350

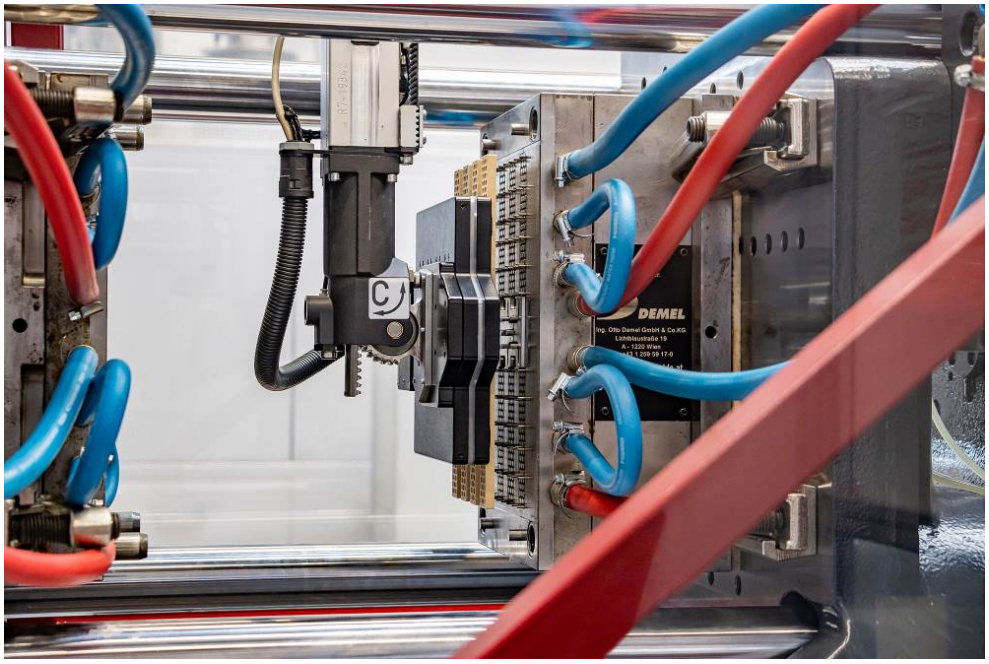

Fig. 2: Parts removal with WITTMANN robot W918

Fig. 3: Bioblo building blocks from Fasal (photo: Bioblo)

Fig. 4a+b: Views of the new compact WX128 robot from WITTMANN with A-C servo axis

Fig. 5: Card 20S

Fig. 6: Tempro plus D160

Fig. 7: WFC 120, 4-circuit model

The WITTMANN Group

The WITTMANN Group is a globally leading manufacturer of injection molding machines, robots and auxiliary equipment for processing a great variety of plasticizable materials – both plastic and non-plastic. The group of companies has its headquarters in Vienna, Austria and consists of two main divisions: WITTMANN BATTENFELD and WITTMANN. Following the principles of environmental protection, conservation of resources and circular economy, the WITTMANN Group engages in state-of-the-art process technology for maximum energy efficiency in injection molding, and in processing standard materials and materials with a high content of recyclates and renewable raw materials. The products of the WITTMANN Group are designed for horizontal and vertical integration into a Smart Factory and can be interlinked to form an intelligent production cell.

The companies of the group jointly operate eight production plants in five countries, and the additional sales companies at their 34 different locations are present in all major industrial markets around the world.

WITTMANN BATTENFELD pursues the continued strengthening of its market position as a manufacturer of injection molding machines and supplier of comprehensive modern machine technology in modular design. The product range of

WITTMANN includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. The combination of the individual areas under the umbrella of the WITTMANN Group enables perfect integration – to the advantage of injection molding processors with an increasing demand for seamless interlocking of processing machines, automation and auxiliaries.

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